

Council Bushcare Representative Group

Meeting Date: Monday, 04 September, 2017

Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra

Time: 4.00 pm

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Agenda

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Membership

Clr White - Chairperson

All Councillors

Mr Jason Carson

Ms Francis Bray

Mr Mike Clear

Mr Tony Jennings

Mr Bryan Lenne

Mr Bill Pigott

Quorum - 5

Purpose

To act as an advisory group on all matters relating to the future directions of the Bushcare Policy and program.

MINUTES OF THE COUNCIL BUSHCARE REPRESENTATIVE GROUP

Meeting Date: Friday, 9 December 2016
Location: Meeting Room 2, Ulladulla Civic Centre
Time: 10.05 am

The following members were present:

Clr Patricia White - Chairperson
Clr Mark Kitchener
Clr Amanda Findley – arrived 10.21am
Mr Mike Clear
Ms Francis Bray
Ms Annie Boutland
Mr Jason Carson

Others Present:

Kelie Lowe – Environmental Services Section Manager
Isabelle Ghetti – Natural Resources Floodplain Management Unit Manager
Alastair Stratton – Bushcare Coordinator
Blake Kelly – Bushcare Trainee

Apologies / Leave of Absence

An apology was received from Clr Wells, Bill Pigott, Bryan Lenne and Tony Jennings.

Confirmation of the Minutes

That the minutes of the Council Bushcare Representative Group meeting, held Wednesday 13 April 2016 be confirmed.

MOTION (Francis Bray / Mike Clear)

Resolved that the minutes of the Council Bushcare Representative Group meeting, held Wednesday 13 April 2016 be confirmed.

CARRIED

Business Arising from the Previous Minutes

General Business Item 5 – Land Use Rezoning discussed as to the potential Council sites and the Bushcare Plans that relate to them. It was stated in the minutes that volunteers are able to access the minutes and information on the Strategic Land Review which discusses potentially rezoning of the land would be circulated via the Bushcare Newsletter. No Update on this issue has been provided and Francis Bray requested a progress report.

Isabelle Ghetti advised that the report has been included in today's agenda item BR16.2. It was not included in the newsletter as there was not much progress at that stage or further information.

Declarations of Interest

Nil

REPORTS

BR16.1 Options to address natural resources impacts on Captain St reserve, Vincentia

**HPERM Ref:
D16/359276**

Clr White advised that the community in Vincentia have been asking for the road to be closed and historically there was a resistance to close it over time. Clr White found it useful to hear the argument from both sides.

There were three submissions that were opposed to it being closed.

Annie Boutland discussed the benefits seen in the Ulladulla Community when the road was closed to a reserve and there is no longer any illegal dumping and the reserve is rehabilitating itself.

Access could be blocked by a lockable gate with emergency access on the other side. It would be feasible to maintain the emergency access driveway and still rehabilitate a significant part of the bush.

Note: Clr Findley arrived, the time being 10.21am.

Recommendation

That

1. The Bushcare Representative Group receive the report for information.
2. Council officers arrange to meet with the people who objected to the closure of the road to discuss their concerns with this option.

Recommendation (By consent)

That

1. The Bushcare Representative Group receive the report for information.
2. Council Officers further investigate the implementation and effect of the closure of the road for Options 1 & 2 as detailed in the report and to meet with the people who objected to the closure of the road and consult with the community.

CARRIED

BR16.2 Council Owned Land/Property Review

**HPERM Ref:
D16/359278**

The Natural Resources and Floodplain Unit met with the Property Services Unit in Council, who is undertaking the lead in the review process and asked for an explanation of the process, to ensure that there was adequate opportunity for the community to provide input and for consultation. The Natural Resources and Floodplain Unit were reassured that the process has different stages. The 1st stage is to develop the Strategic Plan for the Property Strategic Review and the 2nd stage is to place it on exhibition for community input.

Once it is implemented nothing can change without further specific consultation on any specific land.

The Strategic Plan is expected to go on until exhibition in March 2017. The strategic plan is divided into Northern, Central, Southern and further into suburbs.

It will concentrate on the obvious mistakes initially i.e. classifications of land e.g. natural areas that are classified as residential and not connected to other natural areas and has been this way for many years and vice versa.

The Bushcare Representative Group raised concerns as the report seemed to have a large focus on the commercial values and natural areas are not valued in this way. Some of the areas are priceless and if a price is put on them some people maybe just pay that price. The conservation values of the land need to part of the strategic assessment.

Staff advised that part of the reason for the Strategic Review is that it has never really been drilled right down into what we do own and what we don't and whether the purpose land was initially purchased for is required anymore. We will benefit from a strategic document that includes a matrix with options. Once on exhibition the community can provide feedback which can be taken into consideration. Please note that if land was acquired on Trust it cannot be sold prior to extinguishing the Trust, which can take up to two years. Kelie to recommend to property that the natural values and conservation values be included in the matrix that is being used to assess properties.

Clr White advised that the State Governments Review Crown Lands is under negotiations at the moment and it is unclear if and what will go to Council to manage and if so what we can do with the land. It is also undecided what we can take and what we won't take.

It was also advised that Council's Property Review does not cover Crown Land. When the document is on exhibition this should be noted and it will be updated in the Strategic Plan when the Land is transferred.

Francis Bray advised that her concerns are in relation to the LEP process was a "like for like approach". Some natural areas with high conservation value remain zoned recreational. Francis Bray foresees that there will be requests for uses of the land that would be in conflict with the natural value.

It was agreed that further crafting of the language in the document was required prior to it going on exhibition so the community could clearly understand the purpose and the process of the review.

Recommendation

That the Bushcare Representative Group receive the report on Council's Property Strategy for information.

Recommendation (Francis Bray / Annie Boutland)

That

1. The Bushcare Representative Group receive the report on Council's Property Strategy for information
2. The conservation values of land be considered as part of Council owned land and property reviews prior to the document being placed on public exhibition.
3. These values include: The natural, aboriginal cultural values, wildlife corridors and erosion elements such as stabilising the dunes and cliffs be included in the strategic document prior to it being placed on public exhibition.

BR16.3 Discussion Paper - Bushcare Action Plans - Consultation, Feedback from Submissions & Aboriginal Cultural Heritage

**HPERM Ref:
D16/360378**

Council staff have reviewed how community consultation for reviewed bushcare action plans is undertaken and how submissions are assessed.

The aim is to align the Bushcare Action Plans with the Council Community Engagement Strategy.

Staff also reviewed how Aboriginal heritage issues need to be considered. What could be on those sites? What could be impacted? Council needs to look at what we could use more such as trigger questions in relation to Bushcare Action Plans and keeping within the law on these sites.

We are in the process of developing a set of guidelines to help identify and manage bushcare sites.

It is recommended that we initially form a sub group or hold a workshop about the consultation processes prior to making the change. So that there is enough time for the Bushcare Groups to have direct input into what consultation methods are used.

Isabelle Ghetti advised that it is difficult to pre-empt the best method and the amount of expected consultation. Isabelle Ghetti suggested that a trial could be implemented and reported back to the Bushcare Representative Group.

Looking at percentage of submissions is not enough. We also need to assess the comments made.

Clr White said that Council needs to do better with community consultation. To do better we require feedback and this workshop or subgroup could assist staff to change it. The staff need direction in relation to what do you want to see in it. It would be beneficial to have feedback prior to creating it rather than staff sending a document for comment.

Recommendation

That the Bushcare Representative Group recommend that Council implement the following actions:

1. Establish a sub group of the Bushcare Representative Group to review and consider the potential implications and costs of updating the Shoalhaven Bushcare/Parkcare Policy and Procedures section six (6) Community Consultation, to include the methods used for consultation in order to be consistent with Councils Community Engagement Strategy.
2. Council officers and Committee members continue to use quantitative assessment methods to assess submissions on Bushcare Group Action Plans.
3. Council officers and committee members work with Executive Strategy & Communications Section to develop a set of qualitative methods to assess submissions on Bushcare Group Action Plans.
4. Council officers develop a set of questions to include in the Bushcare Group Action Plan review template to prompt Bushcare Groups for the presence or absence of Aboriginal Cultural Heritage sites on their Bushcare Group site.
5. Council officers undertake a preliminary desktop assessment which will inform investigations into the costs of engaging a suitably qualified consultant to undertake due diligence investigation of public land where Bushcare Groups currently work, that potentially have Aboriginal Cultural Heritage sites that require due diligence code to be followed and to identify site by site recommendations for the future management of the Aboriginal cultural heritage on these sites. The investigation to proceed where the cost of this investigation can be absorbed within the existing budget.
6. Council develop a set of guidelines to assist Bushcare Groups in the identification and management of Aboriginal cultural heritage and include these as part of an Aboriginal cultural heritage identification training for Bushcare Group Coordinators.

Recommendation (Francis Bray / Mike Clear)

That the Bushcare Representative Group recommend that Council implement the following actions:

1. Hold a workshop in early 2017 and that the Council Bushcare Group be consulted in regards to the date. The Workshop is to obtain feedback from the Committee on the methods on how to consult with the community how to evaluate submissions as well as review and consider the potential implications and costs of updating the Shoalhaven Bushcare/Parkcare Policy and Procedures section six (6) in order to be consistent with Councils Community Engagement

Strategy.

2. Council officers and Committee members continue to use quantitative assessment methods to assess submissions on Bushcare Group Action Plans.
3. Council officers and committee members work with Executive Strategy & Communications Section to develop a set of qualitative methods to assess submissions on Bushcare Group Action Plans.
4. Alastair Stratton arrange a meeting with Margaret Simoes to establish contact with the Aboriginal Land Councils with the aim of going to Aboriginal Land Council to ask them the best ways to consult with them.
5. Council officers develop a set of questions to include in the Bushcare Group Action Plan review template to prompt Bushcare Groups for the presence or absence of Aboriginal Cultural Heritage sites on their Bushcare Group site.
6. Council officers undertake a preliminary desktop assessment which will inform investigations into the costs of engaging a suitably qualified consultant to undertake due diligence investigation of public land where Bushcare Groups currently work, that potentially have Aboriginal Cultural Heritage sites that require due diligence code to be followed and to identify site by site recommendations for the future management of the Aboriginal cultural heritage on these sites. The investigation to proceed where the cost of this investigation can be absorbed within the existing budget.
7. Council develop a set of guidelines to assist Bushcare Groups in the identification and management of Aboriginal cultural heritage and include these as part of an Aboriginal cultural heritage identification training for Bushcare Group Coordinators.
8. Council communicate with the Bushcare Group Coordinators and invite individuals with skills in communicating with indigenous communities to participate in the Workshop.

GENERAL BUSINESS

BR16.4 Draft Coastal Management State Environmental Planning Policy (SEPP)

There was discussion about the Draft Coastal Management State Environment Planning Policy (SEPP) that the State Government has released for public comment until 24 December 2016. Council staff are making a submission that will be presented to Council in January. Staff advised that Council has requested an extension to the submission period so as to be able to report the matter to Council. This is part of the Governments Coast Reforms and sits under the Coastal Management Act. The result is a whole change in the definition of a coastal zone. It measures 1km from the coast, the new Coastal Act divides the four areas coastal zones. Francis Bray raised her concerns regarding the coastal environment areas. It measures 100m which should include the beach and dunes, however it doesn't match the typography and some sections of dune are left out because the 100m is measured from the Local Government boundary, which could be in the water. The maps have large areas that are not included and therefore not subject to the development conditions that are being proposed in the SEPP. The SEPP applies to private and public land. The other concern is there are no definitions and looking at the map, the maps are wrong and if they are wrong the area cannot be included. Concerns were raised that the rainforest mapping is not accurate and it is worth the Bushcare Groups reviewing the draft SEPP on the NSW Department of Planning and Environment website.

Clr White wished everyone a Merry Christmas and a safe and Happy New Year and there being no further business, the meeting concluded, the time being 11:30am.

Clr White
CHAIRPERSON

BR17.1 Resignation - Annie Boutland - Council Bushcare Representative Group

HPERM Ref: D17/279211

Group: Finance Corporate & Community Services Group
Section: Human Resources, Governance & Customer Service

Purpose / Summary

To advise the Council Bushcare Representative Group that Ms Annie Boutland has resigned from the Committee.

Recommendation

That

1. The Council accept the resignation of Ms Annie Boutland
2. Council call for nominations from Local Bushcare Groups

Options

1. As recommended

Implications: Nil

2. An alternate recommendation

Implications: unknown

Background

Council received an email from Ms Annie Boutland, Thursday 25 May 2017 advising of her resignation from the Council Bushcare Representative Group. Council has acknowledged Ms Annie Boutland's resignation and expressed appreciation of her contributions through the Bushcare Representative Committee.

Ms Annie Boutland has been a member of the Council Bushcare Representative Group since its establishment in 2011.

Community Engagement

Council will write to the Local Bushcare Groups and ask for a nominee to fill the vacancy. A report will be submitted back to the Council Bushcare Representative Group to advise them of the new member.

BR17.1

BR17.2 Three Bushcare Group Action Plans - Cudmirrah-Berrara , William Mulligan Reserve, Sussex Inlet & Dyball Reserve, Swan Haven - New and Review

HPERM Ref: D17/264124

Group: Planning Environment & Development Group
Section: Environmental Services

Attachments: 1. William Mulligan Reserve Bushcare Action Plan [↓](#)
2. Dyball Reserve Bushcare Action Plan [↓](#)
3. Cudmirrah - Berrara Bushcare Group Action Plan - Review [↓](#)

Purpose / Summary

The purpose of the report is to present two (2) new Bushcare Group Action Plans and one (1) reviewed Bushcare Group Action Plan for adoption, and the outcome of the community consultation.

Recommendation

That Council adopt the following two (2) new Bushcare Group Action Plans and the one (1) reviewed Bushcare Action Group Plan:

1. Dyball Reserve Bushcare Group Action Plan – Swan Haven
2. William Mulligan Reserve Group Action Plan – Sussex Inlet
3. Berrara – Cudmirrah Bushcare Group Action Plan

Options

1. Adopt the reviewed and new Bushcare group Action Plans as per the recommendations.

Implications: All three Bushcare Group Action Plans have been reviewed by Council officers and State Government agency staff. All the plans have been sent to the local Council Consultative Bodies' (CCBs) and all residents within 200 meters of the reserve. This is as per the consultation requirements of the Council's Bushcare/Parkcare Policy & Procedures 2009.

2. Adopt one or two of the Bushcare Group Action Plans and seek a review or make changes to the other Bushcare Group Action Plan.

Implications: The positive or negatives implications of choosing this would depend on the proposed changes

3. Not adopt any of the new or reviewed Bushcare Group Action Plans

Implications: This option would significantly affect the moral of Bushcare volunteers, leading to a loss of volunteer participation in the Council Bushcare program.

Background

The Cudmirrah – Berrara Bushcare Group Action Plan was due for review in July 2013 and two new Bushcare Groups have started at Swan Haven, Dyball Reserve and William Mulligan Reserve, Sussex Inlet, both of which have created new Bushcare Plans.

Part C of MIN08.117 Ordinary Council meeting dated 29 January 2008 states that:

“Council affirms its direction that planting and other associated pursuits should only be done by abovementioned groups in accordance with Bushcare and Parkcare action plans as approved by Council”.

This part of the Council resolution requires that all Bushcare and Parkcare Groups that operate on Council owned or managed land prepare plans for adoption by Council.

Part D of MIN08.1552 Ordinary Council meeting dated 25 November 2008 states that:

“An all-embracing Consultation Policy be developed that will include nearby residents, the wider community, Tourism Shoalhaven, CCBs, Chambers of Commerce, community groups, church groups and local schools.”

The level of consultation required is dependent on the actions outlined within the plan and is specified in chapter 6, Community Consultation, of the Bushcare/Parkcare Policy, 2009. Council has recently resolved to update this Policy. A workshop with Councillors will be held to inform this review process.

Under the Council’s Community Engagement Policy matrix, all Bushcare Action Plans are classed as local, low impact projects. Therefore, combined with the requirements of the Bushcare Policy both Bushcare Action Plans used direct communication via a mail out to all residents/ratepayers and CCBs. Both the new and reviewed plans were made available on Council’s website.

Copies of the three Bushcare Group Action Plans and a summarised presentation of each Bushcare Plan was placed on Council “Get Involved” website for the public to comment on.

Notification of the review and new plans and opportunity and instructions on how to provide feedback for the three (3) Bushcare Group Action Plans were mailed and/or emailed out to 562 adjoining residents/ratepayers near the affected public reserves, as well as the Cudmirrah – Berrara Progress Association and the Sussex Inlet Community Forum.

During the consultation phase, Council received twelve submissions; the following is a breakdown of the submissions:

Cudmirrah – Berrara Bushcare Plan Review – Total submissions 4

Summary of issues raised	Changes made or actions taken as a result of the submission	Number of submissions that raised this issue
Bushfire risks not addressed	Bushcare program is not responsible for bushfire mitigation and staff in charge of bushfire mitigation have been consulted to ensure plan does not adversely impact on Council’s bushfire mitigation program.	1
Support for the plan	NA	2
Concern about overgrown vegetation at Berrara Cove and Kirby’s Beach	Action in plan to notify if viewing platforms require vegetation control	1

Dyball Reserve Bushcare Plan – Swan Haven – Total submissions 3

Summary of issues raised	Changes made or actions taken as a result of the submission	Number of submissions that raised this issue
Support for the plan	NA	1
Reduction in bushfire risk	Bushcare program is not responsible for bushfire mitigation and staff in charge of bushfire mitigation have been consulted to ensure plan does not adversely impact on Council's bushfire mitigation program.	1
How will on-going information about Bushcare Group activities be communicated to the community	Communication via progress association	1

William Mulligan Reserve – Sussex Inlet – Total submissions received 4

Summary of issues raised	Changes made or actions taken as a result of the submission	Number of submissions that raised this issue
Concerned about vehicle access across reserve for emergency	An on-site meeting, with Council, DPI Fisheries and affected property owners was held. It was agreed that mowing could be reduced and salt marsh protected whilst also still allowing some mowing to continue to maintain access to jetties and the reserve. Council has applied to NSW Fisheries for a Permit to Harm under the Fisheries Act for this mowing.	3
Opposed to restricting vehicle access		3
Concerned about restrictions on mowing saltmarsh vegetation on foreshore reserve		2
Council is targeting individual property owners		1

Community Engagement

Two CCB's and 562 residents/ratepayers were given the opportunity to provide feedback on the three (3) Bushcare Group Action Plans.

Policy Implications

NA

Financial Implications

The cost of implementing the actions within the new and reviewed plans over three years, including voluntary labour, will be a total cost of \$26,588. These costs will be funded through Council's existing Bushcare program budget and voluntary labour, as follows:

-
- \$15,300 (accommodated through existing budgets) materials/equipment and direct support from casual Bushcare Field Officer Staff;
 - \$11,288 in existing salaried staff time; and
 - In-kind volunteer contribution \$45,360

Risk Implications

This report demonstrates the value of Bushcare volunteers to manage natural areas under the care and control of Council. The community is largely supportive of the three (3) Bushcare Action Plans. The report outlines the consultation process and how the submissions received have been considered and addressed. It is recommended that the new Dyball Reserve and William Mulligan Reserve and the reviewed Cudmirrah-Berrara Bushcare Group Action plans be adopted.



WILLIAM MULLIGAN RESERVE BUSHCARE ACTION PLAN

Document Number: D15/67079 • **Adopted:** • **Minute Number:** • **File:** 26280E •
Produced By: Planning & Development Services Group • **Review Date:**

CONTACT INFORMATION

Group Name:	Sussex Inlet Bushcare Group
Contact:	Debra and Tony Pugh
Address:	177 River Rd, Sussex Inlet
Telephone:	(02) 4441 2354
Email:	spicerdebra@aol.com
Reserve Name:	William Mulligan Reserve
Reserve Number:	BSU934
Land Tenure:	Crown Land CCM
Comm. Land Type:	N/A

1. BUSHCARE GROUP GOALS

The goals of the William Mulligan Reserve Bushcare Group are as follows:

1. Regeneration of the foreshore bushland areas of William Mulligan reserve along the Sussex Inlet to improve the reserve ecological values and the local biodiversity.
2. Undertake bush regeneration and staged weed control/removal to maintain and improve the health of the Swamp Oak Floodplain Forest and Salt Marsh vegetation, which are listed as Endangered Ecological Communities under the NSW Threatened Species Conservation Act 1995 and provide a buffer between the terrestrial and estuarine environments (see photos in figures 2,3,4,5).
3. Raise community awareness of the environmental values of the remnant vegetation.

2. SHOALHAVEN BUSHCARE GROUP ACTIVITIES TABLE (to be in conjunction with attached site map)
NOTE: Priority should be rated as H = High (within 12 months); M = Medium (1-3 years); L = Low

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<i>All weed control work should follow best practise bush regeneration principles of starting in healthy or least degraded bushland areas and work progressively towards the areas that are more degraded or have higher density weed populations. Bushcare works should be undertaken in the following priority of weed control.</i>			
Control of <i>Asparagus aethiopicus</i> (Ground Asparagus) working from lighter, isolated infestations to heavier infestations	H	1. Smaller isolated plants can be removed manually using the "Crowning method" and all reproductive parts of the plant bagged and removed from site (see Appendix 1 on <i>Asparagus spp</i> manual control regeneration information sheet). 2. Larger dense infestations can be sprayed using Metsulfuron Methyl at the manufacturer's recommended rates.	Manual control all year Chemical control spring & early summer
Control of <i>Asparagus plumosus</i> (Climbing Asparagus)	M	As there are only isolated small infestations of <i>Asparagus plumosus</i> they should be removed manually via "crowning" and all reproductive parts of the plant bagged and removed from site.	All year
Spreading of Bridal Vail Creeper biological control rust	H	Bushcare Coordinator to assist group to release the Bridal Creeper	Winter

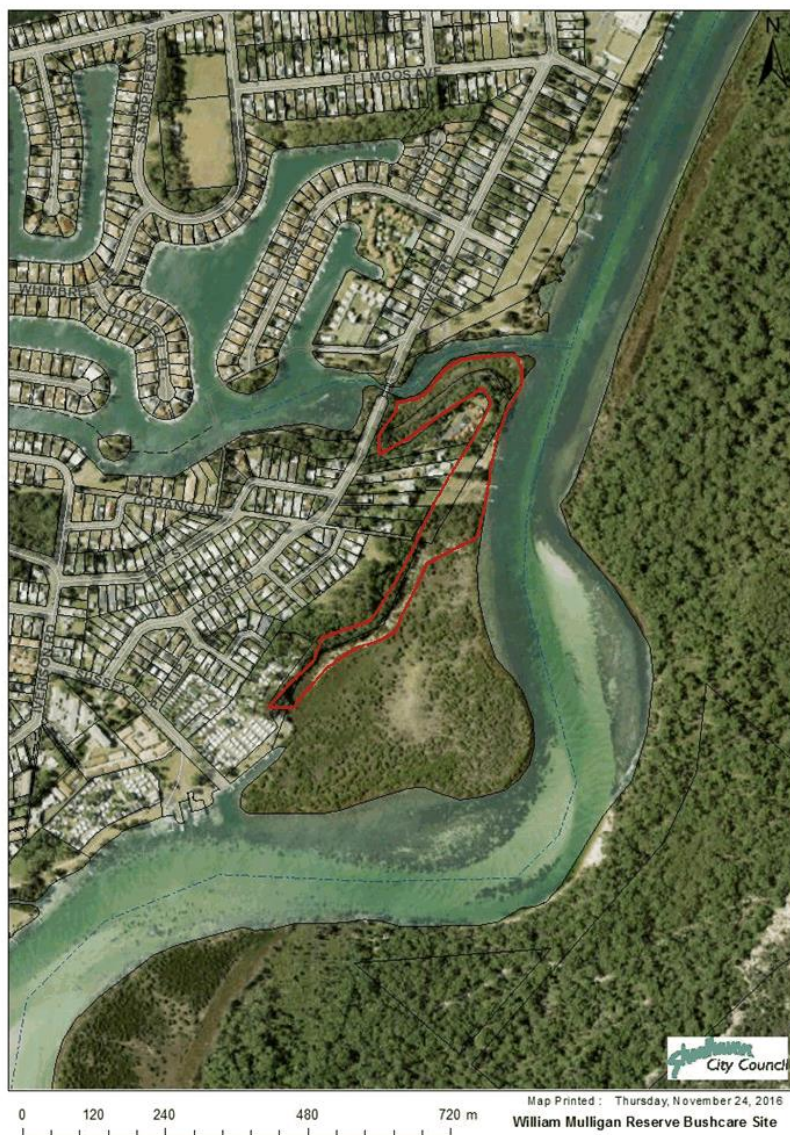
GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
Control woody weeds on site in the following priority: 1. <i>Chrysanthemoides monilifera</i> spp. <i>rotunda</i> - Bitou Bush 2. <i>Senna pendula</i> spp <i>pendula</i> - Senna 3. <i>Comptosia repens</i> - New Zealand Mirror Bush 4. <i>Erythrina x sykesii</i> - Coral Tree (only smaller plants)	H	rust fungus. Cut and paint or hand pull (see Appendix 2 bush regeneration information sheet).	All Year
<i>Rubus fruticosus</i> (Blackberry) and <i>Lonicera japonica</i> (Japanese Honeysuckle) and <i>Passiflora Mollissima</i> (Black Passionfruit) control	M	Scrape and paint stems (see attached information sheet) and hand pull Banana Passionfruit.	All Year
<i>Lilium formosanum</i> (Formosan Lily) control	H	Cut top of Lily and drip 1 or 2 drops of neat Glyphosate on the cut stem.	Spring – summer prior to flowering
<i>Olea europeaea</i> spp. <i>cuspidate</i> (African Olive)	H	Drill and inject large trees with 1/3 ratio of Glyphosate/Water, smaller shrubs can be cut and painted with the same ratio of glyphosate/water and small plants can be hand pulled	All Year
Revegetation of areas that have had weed control undertaken to improve diversity and provide stability and natural filters to the inlet to improve water quality. Focus of revegetation efforts should be on re-establishment of ground and mid story native species following secondary weed control efforts.	H	Use plant species from the suggested revegetation/planting list	Autumn/ Winter
Investigate possible staged removal/control program for the <i>Pittosporum undulatum</i> (Sweet Pittosporum by working with	L	Negotiate with Council staff and NSW OEH staff.	All year

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
NSW Office of Environment and Heritage to prepare a Review of Environmental Factors (REF) for the proposal.			
Monitor the reserve for any rubbish/garden waste dumping or illegal vegetation removal/damage	H	Report directly to Council Ranger Services P – 44293433 AH – 44293100 or council@shoalhaven.nsw.gov.au	All Year
Under Part 7A 220ZD of the NSW Fisheries Management Act 1994, the legislation states <i>"By an act or omission, do anything that causes damage to any habitat (other than critical habitat) of a threatened species, population or ecological community if the person knows that the area concerned is habitat of that kind"</i> . As the vegetation on this section of crown land has been identified as saltmarsh which is a threatened ecological community. The vegetation has continued to be mown/slashed by adjacent property owners and vehicles have been driving on the vegetation which has damaged the vegetation (see appendix 4 for photos for evidence of this). As the land manager Council is required to take actions to prevent further damage to the saltmarsh community. Council, NSW DPI Fisheries have meet with property owners of 290, 292 & 294 and agreed to the following actions to reduce harm: <ul style="list-style-type: none"> 1. Slash/mow 2 x 2 metre width paths to allow foreshore/jetty access for residents 2. Allow mowing from the rear of properties down to informal vehicle access track and allow on-going vehicle access across saltmarsh vegetation These actions will form part a Permit to Harm marine	H	Property owners of 290.292 & 294 will be required to register under Council Bushcare program and comply with conditions of the permit to harm (see map in appendix 3 for details)	2017 -18

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
vegetation which will be issued by NSW DPI Fisheries. (see map in appendix 3 for details).			

DRAFT

3. WILLIAM MULLIGAN – SUSSEX INLET BUSHCARE GROUP ACTION
PLAN MAP



Bushcare site boundary

4. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	Safe Work Instruction (SWI)
Chemical control (spraying of herbicides)	<input checked="" type="checkbox"/>	SWI129

5. COUNCIL SUPPORT

- Technical assistance
- Tools/equipment (within budgetary constraints)
- Grant funding and management assistance
- Supply of on-site training for 3 hours per month
- Supply of Personal Protective Equipment

6. HAS A SITE HAZARD AND RISK ASSESSMENT BEEN COMPLETED FOR THE BUSHCARE SITE?

Yes ☒ No ☐

7. LIST THE PERSONAL PROTECTION EQUIPMENT REQUIRED FOR VOLUNTEERS WHILST WORKING ON THE SITE

PPE Equipment Required	Date issued
First Aid Kit	Nov 2014
Gloves	Nov 2014
Sunscreen	Nov 2014
Insect repellent	Nov 2014

8. POSSIBLE FUTURE FUNDING

Project	Funding source
Weed control and revegetation works	Various

9. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due:

...../...../.....

10. PLEASE LIST OTHER LOCAL OR REGIONAL MANAGEMENT PLANS OR STRATEGIES THAT THIS PLAN RELATES TO

Name of document	Year it was produced	Produced by
Foreshore Reserve Policy	2005	Shoalhaven City Council
St Georges Basin Revised Estuary Management Plan	2013	Shoalhaven City Council

11. BUSHCARE SITE RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> spp. <i>longifolia</i>	Sydney Golden Wattle
<i>Elaeocarpus reticulatus</i>	Blueberry Ash
<i>Pittosporum revolutum</i>	Rough Fruit Pittosporum
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Dianella caerulea</i>	Native Blue Flax Lily
<i>Gahnia clarkei</i>	Sword Grass
<i>Hardenbergia violacea</i>	Happy Wanderer
<i>Juncus kraussii</i>	Sea Rush
<i>Kennedia rubicunda</i>	Dusky Coral Pea
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Oplismenus aemulus</i>	Basket Grass
<i>Scaevola ramosissima</i>	Purple Fan Flower
<i>Themeda triandra</i>	Kangaroo Grass
<i>Viola hederacea</i>	Tiny Violet

12. BUSHCARE SITE WEED LIST (The following weeds have been recorded on the site)

Noxious	Environmental	Control Method
<i>Asparagus aethiopicus</i> (Ground Asparagus)		<ul style="list-style-type: none"> For smaller isolated infestations dig out crown, bag and remove from site; can be done all year round Larger denser infestations can be sprayed with Metsulfuron Methyl at recommended rates (1-2gms per 10 litres) should be carried out in Spring
<i>Asparagus plumosus</i> (Climbing Asparagus)		As there are only isolated plants the best method of control/removal is to dig out rhizomes and crowns, bag and remove from site.
<i>Asparagus asparagoides</i> (Bridal Vail Creeper)		Apply rust fungus biological control in the Winter months
<i>Chrysanthemoides monilifera</i> spp <i>rotunda</i> (Bitou Bush)		Hand pull or cut and paint larger plants
<i>Rubus fruticosus</i> (Blackberry)		Stem scrape and paint with neat Glyphosate
	<i>Senna pendula</i> (Cassia)	Cut and paint larger plants and hand pull smaller ones (use 1:3 ratio of glyphosate to water)
	<i>Coprosma repens</i> (NZ Mirror Bush)	Cut and paint larger plants hand pull regrowth seedlings
	<i>Ehrharta stricta</i> (Panic Veldt Grass)	Spot spray with very low dilution rates of Glyphosate at 1:200
	<i>Stenotaphrum secundatum</i> (Buffalo Grass)	Hand pull smaller patches around and in native ground covers – larger areas can be spot sprayed with a very low dilution of glyphosate at 1:200 ratio
	<i>Lonicera japonica</i> (Japanese Honeysuckle)	Stem scrape and paint neat glyphosate on smaller (use 1:3 ratio of glyphosate to water) infestations
	<i>Erythrina x sykesii</i> (Coral Tree)	Cut and paint smaller plants
	<i>Tradescantia fluminensis</i> (Wandering Jew)	Smaller infestations can be rolled up with a rake and disposed of or covered with black plastic and solarised




	<i>Ochna serrulata</i> (Micky Mouse Plant)	Stem scrape or cut and paint with glyphosate (never hand pull as this plant has a large tap root)
	<i>Physalis peruviana</i> (Cape Gooseberry)	Hand pull and dispose of any seed
	<i>Olea europaea</i> <i>spp. cuspidate</i> (African Olive)	Drill and inject larger trees or cut and paint smaller shrubs

13. BUSHCARE SITE SPECIES LIST (The following species have been recorded on the site)

OVERSTOREY TREES	
Botanical	Common
<i>Acmena smithii</i>	Lilk Pilli
<i>Angophora floribunda</i>	Rough Barked Apple Box
<i>Casuarina glauca</i>	Swamp She Oak
<i>Eucalyptus agglomerata</i>	Blue-Leaved Stringybark
<i>Eucalyptus botryoides</i>	Bangalay Gum
<i>Eucalyptus pilularis</i>	Blackbutt
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> <i>spp. longifolia</i>	Sydney Golden Wattle
<i>Breynia oblongifolia</i>	Native Privet
<i>Elaeocarpus reticulatus</i>	Blueberry Ash
<i>Exocarpos cupressiformis</i>	Ballart Cherry
<i>Hakea salicifolia</i>	Willow Leaf Hakea
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Monotoca elliptica</i>	Pigeon Berry Ash
<i>Notelaea longifolia</i>	Mock Olive
<i>Pittosporum revolutum</i>	Rough Fruit Pittosporum
<i>Pittosporum undulatum</i>	Sweet Pittosporum
<i>Podolobium ilicifolium</i>	Prickly Shaggy Pea
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Adiantum aethiopicum</i>	Common Maidenhair Fern
<i>Baumea articulata</i>	Jointed Twig Rush
<i>Dianella caerulea</i>	Native Blue Flax Lily
<i>Dichondra repens</i>	Yillibilli
<i>Doodia aspera</i>	Prickly Rasp Fern
<i>Gahnia clarkei</i>	Sword Grass
<i>Juncus kraussii</i>	Sea Rush
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Oplismenus aemulus</i>	Basket Grass
<i>Ozothamnus ferrugineus</i>	Tree Everlasting
<i>Phragmites australis</i>	Common Reed

<i>Pimelea linifolia</i>	Slender Rice Flower
<i>Plectranthus parviflorus</i>	Cockspur Flower
<i>Pteridium esculentum</i>	Common Bracken Fern
<i>Rytidosperma fulvum</i>	Wallaby Grass
<i>Scaevola ramosissima</i>	Purple Fan Flower
<i>Themeda triandra</i>	Kangaroo Grass
<i>Viola hederacea</i>	Tiny Violet
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Billardiera scandens</i>	Hairy Apple Dumppling
<i>Cassytha glabella</i>	Slender Devils Twine
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Marsdenia rostrata</i>	Milk Vine
<i>Parsonsia straminea</i>	Monkey Rope Vine

Appendix 1 – Bush Regeneration Information Sheets - Control of Weeds with Underground Reproductive Structures

NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE

Australian
Association
of Bush
Regenerators

BUSH REGENERATION INFORMATION SHEET

Control of Weeds with Underground Reproductive Structures cont..

METHODS OF REMOVAL

3 REMOVAL OF PLANTS WITH BULBS, CORMS OR TUBERS
Examples: onion weed, watsonia, arrowhead vine, montbretia

STEP 1 Move leaf litter away from base of plant.

STEP 2 Dig down next to the stem until the bulb or tuber is reached.


STEP 3 Remove plant and carefully bag the bulb or tuber.

4 HERBICIDE TREATMENT - STEM SWIPING

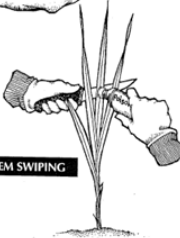
STEP 1 Gently remove any seed or fruit and carefully place into a bag.

STEP 2 Using a herbicide applicator, swipe the stems/leaves.

HAND REMOVAL






STEM SWIPING



considerations

- ☐ Further digging may be required for plants with more than one tuber (e.g. arrow head vine).
- ☐ Some bulbs (e.g. oxalis, onion weed) may have small bulbils attached or present in the soil around it. These need to be removed.
- ☐ It may be quicker and more effective to dig out the weed.
- ☐ Make sure native plants and seedlings will not be affected.
- ☐ Learn and understand how the herbicide works - for bulb and corm species the most effective time is after flowering and before fruit is set.
- ☐ Have you addressed all safety issues ?

Australian Association of Bush Regenerators

BUSH REGENERATION INFORMATION SHEET

Control of Weeds with Underground Reproductive Structures

Examples: Weeds with

- Tap roots - catsear, dandelion
- Rhizomes - asparagus fern, ginger plant
- Bulbs and corms - oxalis, onion weed, watsonia, freesias, montbretia
- Tubers - madiera vine, arrow head vine

METHODS OF REMOVAL

① HAND REMOVAL OF PLANTS WITH A TAPROOT

Examples: Paddy's lucerne, dandelion

STEP 1 Gently remove and bag seeds or fruit.

STEP 2 Push a narrow trowel or knife into the ground next to the taproot. Carefully loosen soil. Repeat this step around the taproot.

STEP 3 Grasp stem at ground level, rock plant back wards and forwards and pull gently.

STEP 4 Gently tap the roots to dislodge soil. Replace disturbed soil and lightly pat down.

② CROWNING (Many grasses can be crowned)

Example: asparagus fern


STEP 1 Gently remove and bag stems with seed or fruit.

STEP 2 Grasp the leaves or stems together so that the base of the plant is visible.


STEP 3 Insert, at an angle, a knife or lever, close to the "crown".

STEP 4 Cut through all the roots around the crown.

STEP 5 Remove and bag the crown.






HAND REMOVAL



CROWNING

Appendix 2 – Controlling Woody Weeds – Bush Regeneration Information Sheets

Australian
Association
of Bush
Regenerators

BUSH REGENERATION INFORMATION SHEET

Control of Woody Weeds

Examples of woody weeds include:

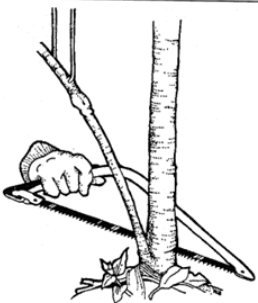
- lantana, bitou bush, cotoneaster, privet (cut and paint)
- camphor laurel, Mickey Mouse bush (ochna) and cassia/senna (stem scrape)

METHODS OF REMOVAL

1 CUT AND PAINT—Useful for small to medium sized woody weeds up to 10cm basal diameter

STEP 1 Make a horizontal cut as close to the ground as possible with secateurs, loppers or a bush saw.

STEP 2 Immediately apply herbicide to the exposed flat stump surface.



SAFETY CONSIDERATIONS

The following general precautions should be made when using herbicides:

- Read the label before opening the container and follow the instructions.
- Wear protective clothing as directed on the label.
- Wash hands after use and before eating or smoking.

considerations

- Cuts should be horizontal to prevent herbicide from running off the stump. Sharp angle cuts are hazardous.
- Herbicide must be applied immediately before the plant cells close and translocation of herbicide ceases.
- If plants resprout, cut and paint the shoots after sufficient regrowth has occurred.
- Stem scraping can be more effective on some woody weeds.

Appendix 3: Figure 1. Map showing location of saltmarsh currently been mown/slashed and proposed protection area with jetty access points.



Appendix 4 – Figure 2: Photos of mown/slashed saltmarsh vegetation and damage from vehicles



BR17.2 - Attachment 1



Appendix 5 - Figure 3: Photos of William Mulligan Bushcare Site and vegetation types



Photo 1: Estuarine Mangroves and saltmarsh vegetation on the eastern side of William Mulligan Reserve, which is listed as an Ecologically Endangered Community under the NSW Threatened Species Conservation Act 1995



Photo 2: Swamp Oak Forest and Saltmarsh vegetation, which is listed as an Ecologically Endangered Community under the NSW Threatened Species Conservation Act 1995 at William Mulligan Reserve



Photo 3: Informal walking track running through the eastern end of the William Mulligan Reserve



Photo 4: Upper section of William Mulligan Reserve, which has been mapped as Bangalay Sand Forest Complex vegetation, which is listed as an Ecologically Endangered Community under the NSW Threatened Species Conservation Act 1995



Photo 5: Informal road crossing the northern end of the crown reserve where by adjacent property owners gain access to rear of their properties. The road transects the two vegetation communities, with Swamp Oak Forest occurring on the lower side of the road and Bangalay Sand Forest Complex vegetation on the upper side. Both these vegetation types are listed as an Ecologically Endangered Community under the NSW Threatened Species Conservation Act 1995



Photo 6: Buffalo Grass (Stenotaphrum secundatum) invading the understory vegetation of Swamp Oak (Casuarina glauca) Forest on the foreshore of Chris Creek.



DYBALLS RESERVE BUSHCARE ACTION PLAN

Document Number: D15/209424 • **Adopted:** • **Minute Number:** • **File:** 26280E •
Produced By: Planning & Development Services Group • **Review Date:**

CONTACT INFORMATION

Group Name: Dyball Reserve
Contact: Sam Dunnett
Address: 8 Sundowner Ave, Berrara
Telephone: 44411477 Phone number appears to be short a digit.
Email: samuel.dunnett2@gmail.com
Reserve Name: Dyball Reserve
Reserve Number: R78638
Land Tenure: Crown T/M

1. BUSHCARE GROUP GOALS

Dyball Reserve Bushcare Group Action Plan Goals:

1. Maintain and protect biodiversity values in the short and long-term by:
 - a. Undertaking weed control using approved techniques, tools and chemicals.
 - b. Conduct a rabbit baiting program using approved techniques, tools and chemicals.
 - c. Undertake revegetation using local native plant species in strategic locations to improve connectivity between existing areas remnant native vegetation.

2. Provide information on the reserve's biodiversity values to raise awareness in the wider community.

3. Consult with the community and all key stakeholders to involve them in the implementation of the Bushcare group Action Plan.

NOTE: The Dyball Reserve Bushcare Group Action Plan takes its goals and actions from a management plan prepared by Samuel Dunnett as part of his major assignment for the Conservation and Land Management – Diploma (see attached).

- 4.

2. Dyball Reserve Environmental Values

Dyball Reserve and Swan Lake surrounding area has the following environmental values:

- a) Swan Lake and nearby Berrara Creek, and their catchment support a great variety of habitats. The area is known to be a biodiversity hotspot, with nearly 500 plant species, 150 bird species, and at least 23 native mammal species known to occur in the area.
- b) There is little development in the catchments and large areas of land remain in unspoilt condition with their original floristic composition and structure. Most of the catchment areas lie in the Conjola National Park
- c) Healthy seagrass, algae and foreshore vegetation provide important habitats, oxygenate the water and assist to stabilise the sediments on the lake and creek beds.
- d) A range of internationally protected wading birds use the foreshore vegetation, sand and mud flats, rocky shores, beach sands and wetlands for feeding, resting and breeding sites. Large populations of swans and other water birds are present on the lake when conditions are favourable.
- e) Wetlands to the north of Swan Lake and at the mouths of Mondayong and Teatree Creeks are protected under Coastal Wetlands State Environmental Planning Policy No 14. Other wetlands to the west and south are also significant
- f) Populations of a number of rare or threatened plant and animal species are known to exist in the area. These include Black Bittern, Pied Oystercatcher, and Sooty Oystercatcher, Osprey, Hooded Plover, Powerful Owl, Glossy Black Cockatoo, Regent Honeyeater and the saltmarsh plants (*Wilsonia backhousia* and *Wilsonia rotundifolia*.) The Hooded Plover (Endangered) and Pied Oystercatcher (Vulnerable) have been recorded nesting at the entrances to both Swan Lake and Berrara Creek. They nest from October to February and may be affected if the lake is opened artificially during this time. This is one of the most important localities of Hooded Plovers in Australia (NPWS, 2002).
- g) The vegetation cover of Dyball Reserve fits the criteria of Coastal Estuary Swamp and Bangalay Sand Forest. Both of these are listed as Endangered Ecological Communities in the *NSW Threatened Species Conservation Act 1995*

3. Threats to Dyball Reserve

Factors that pose a direct threat to the above environmental values of the reserve and Swan Lake are: (

- Introduced animals, including foxes, domestic and feral cats and dogs, black rats and rabbits, threaten native animal and plant populations.

- Weeds, although scarce overall, are prevalent in some areas where they threaten native plant communities.
- Dumping of garden refuse and other material causes damage to bushland
- Artificial opening of Swan Lake to the sea affects the natural fluctuations in populations of fish and other aquatic species and affects foreshore vegetation and wetlands.
- Significant vegetation and populations of threatened and rare species exist on land that is not part of a reserve system.
- There is a risk that the invasive marine seaweed *Caulerpa taxifolia* could be introduced to the lake. This presents a threat to the biological diversity, amenity and economic viability of local tourist industries that depend on healthy coastal lakes in the Shoalhaven. (Shoalhaven City Council, 2002)

4. DYBALL RESERVE BUSHCARE GROUP STRATEGY TABLE (to be in conjunction with attached site map)

NOTE: Timing Key: Short Term = within 12 months, Medium Term = within 24 months, Long Term = 2 to 5 years, On-going

Bushcare Group Action Plan Strategy/Objective	Bushcare Group Actions	Priority	Timing	Whom
Protect significant ecological communities and populations of rare or threatened species that are on and near Dyball Reserve	Conduct biological surveys throughout the reserve	High	Medium Term	Dyball Reserve Bushcare Group Coordinator and Council staff
	Make a list of a rare and endangered animals, plants and communities found at the reserve	High	Short Term	Dyball Reserve Bushcare Group Coordinator
	Investigate capability and appropriate uses of the reserve	Medium	Short Term	Dyball Reserve Bushcare Group Coordinator
Control populations of introduced animals and plants in Dyball Reserve	Develop management strategies for pests that exist in and near the reserve	High	Medium Term	Dyball Reserve Bushcare Group Coordinator
	Implement management strategies for pests on the reserve.	High	Ongoing	Dyball Reserve Bushcare Group with assistance from Council staff and/or contractors
Protect Cultural Resources in Dyball Reserve	A thorough search of the reserve was conducted as well as a history of the site via the internet.	Medium	Medium Term	Dyball Reserve Bushcare Group Coordinator
	Consult members of the local Aboriginal Land Council about the historical use of these sites and their significance to the Jerrinja people and register any Aboriginal Cultural Heritage sites with the	High	Short Term	Dyball Reserve Bushcare Group, Traditional Aboriginal Land Owners and Council and Archaeologist

Bushcare Group Action Plan Strategy/Objective	Bushcare Group Actions	Priority	Timing	Whom
	NSW Office of Environment and Heritage to improve protection of the sites			

DRAFT

5. SHOALHAVEN BUSHCARE GROUP ACTIVITIES TABLE (to be in conjunction with attached site map)

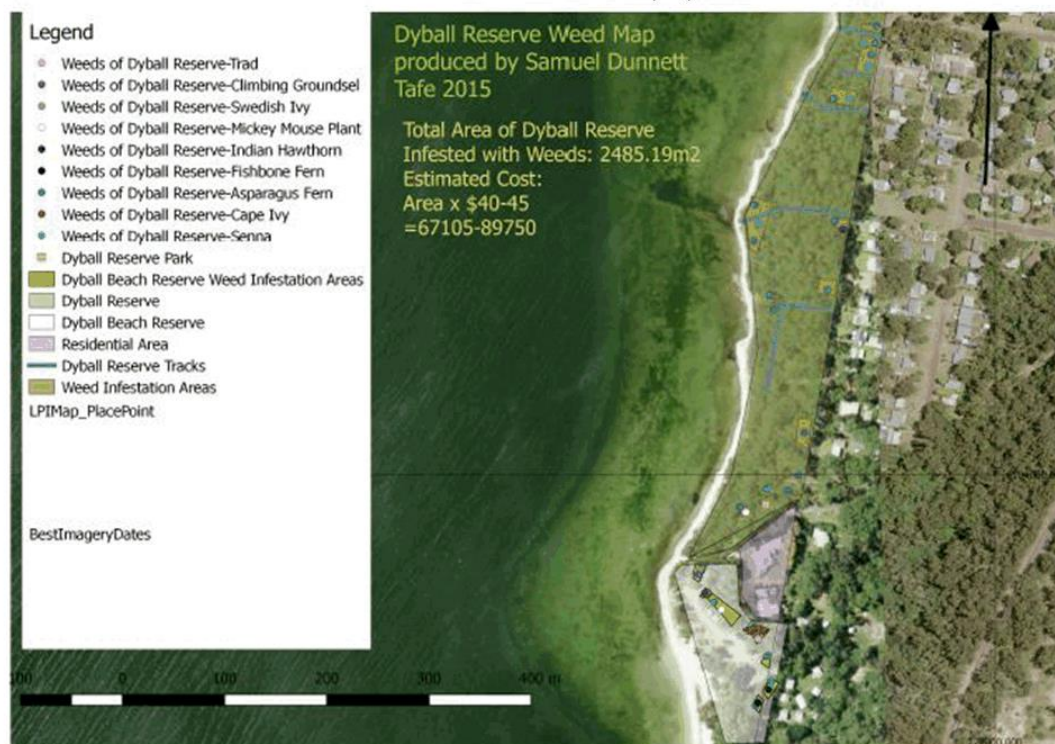
NOTE: Priority ranks: H = High (within 12 months); M = Medium (1-3 years); L = Low

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
Area 1: <ul style="list-style-type: none"> Conduct primary weed control 	H	Follow the weed removal or control techniques found in <i>Strategies for the Management of Target Pests in Dyball Reserve</i>	
Area 2: <ul style="list-style-type: none"> Conduct primary weed control Choose suitable locations within Area 2 for lethal baiting practices 	H H	Follow the weed removal or control techniques as well as pest control practices found in <i>Strategies for the Management of Target Pests in Dyball Reserve</i>	
Area 3: <ul style="list-style-type: none"> Conduct primary weed control Choose suitable locations within Area 2 for lethal baiting practices 	H H		
Area 4: <ul style="list-style-type: none"> Conduct primary weed control No Chemical applications to be done within 2 metres of the shoreline. 	H H		

7. Dyball Reserve Management Annual Gantt Chart (sourced from the Dyball Reserve Management Plan, Dunnett. S)

Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Conduct weed control												
Conduct feral animal control												
Conduct planting												
Maintain planting and site monitoring												
Summarise weed and feral animal control results												

7. DYBALL RESERVE BUSHCARE GROUP ACTION PLAN MAP



8. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS/SWI name included
Safe Work Instruction – Herbicide Spraying	✓	SWI129
Safe Work Instructions – Poisons – Handling	✓	SWI160

9. COUNCIL SUPPORT

10. HAS A SITE HAZARD AND RISK ASSESSMENT BEEN COMPLETED FOR THE BUSHCARE SITE?

Yes ☒ No ☐

11. LIST THE PERSONAL PROTECTION EQUIPMENT REQUIRED FOR VOLUNTEERS WHILST WORKING ON THE SITE

PPE Equipment Required	Date issued
First Aid Kit	2015
Gloves	2015
Sunscreen	2015
Insect repellent	2015

12. POSSIBLE FUTURE FUNDING

Project	Funding source
Bush regeneration and pest animal control	Various
Aboriginal Heritage assessment/Due diligence	Various

13. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due:

...../...../.....

14. PLEASE LIST OTHER LOCAL OR REGIONAL MANAGEMENT PLANS OR STRATEGIES THAT THIS PLAN RELATES TO

Name of document	Year it was produced	Produced by
Shoalhaven Council Foreshore Reserves Policy	2005	Shoalhaven City Council
Community Land Generic Plan of Management – Natural Areas	2001	Shoalhaven City Council
Swan Lake and Berrara Creek Natural Resource Management Strategy	2002	Shoalhaven City Council

15. BUSHCARE SITE RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

OVERSTOREY TREES	
Botanical	Common
<i>Allocasuarina littoralis</i>	Black she-oak
<i>Callistemon salignus</i>	Willow Bottlebrush
<i>Eucalyptus longifolia</i>	Woolly butt
<i>Eucalyptus pilularis</i>	Blackbutt
SHRUBS	
Botanical	Common
<i>Banksia spinulosa</i>	Hairpin Banksia
<i>Ficus coronata</i>	Sandpaper Fig
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Monotoca elliptica</i>	Tree Broom-heath
<i>Ricinocarpus pinifolius</i>	Wedding Bush
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Gahnia clarkei</i>	Tall saw-sedge
<i>Gahnia sieberiana</i>	Red-fruited saw-sedge
<i>Glycine clandestina</i>	Twining glycine
<i>Isolepis nodosa</i>	Knobby Club-rush
<i>Kennedia rubicunda</i>	Dusky Coral Pea
<i>Morinda jasminoides</i>	Sweet Morinda

16. BUSHCARE SITE WEED LIST (The following weeds have been recorded on the site)

Noxious	Environmental	Control Method
Asparagus Fern (<i>Asparagus aethiopicus</i>)		Manual Removal and Chemical Control
	Cape Ivy (<i>Delairea odorata</i>)	Manual Removal and Chemical Control
	Swedish Ivy (<i>Plectranthus verticillatus</i>)	Chemical Control
	Climbing Groundsel (<i>Senecio angulatus</i>)	Chemical Control
	<i>Tradescantia fluminensis</i> (Wandering Jew)	Manual Removal and Chemical Control
	Fishbone Fern	Manual Removal and Chemical

	(<i>Nephrolepis cordifolia</i>)	Control
	Wild Gooseberry (<i>Physalis angulata</i>)	Manual Removal
	Indian Hawthorn (<i>Rhaphiolepis indica</i>)	Manual Removal and Chemical Control
	Winter Senna (<i>Senna pendula</i> spp. <i>pendula</i>)	Manual Removal and Chemical Control
	Micky Mouse Plant (<i>Ochna serrulata</i>)	Manual Removal and Chemical Control

17. BUSHCARE SITE SPECIES LIST (The following species have been recorded on the site)

OVERSTOREY TREES	
Botanical	Common
<i>Eucalyptus robusta</i>	Swamp Mahogany
<i>Eucalyptus botryoides</i>	Bangalay Gum
<i>Casuarina glauca</i>	Swamp She-oak
<i>Acacia irrorata</i>	Black Wattle
<i>Allocasuarina littoralis</i>	Black She-oak
<i>Banksia serrata</i>	Old Man Banksia
<i>Corymbia gummifera</i>	Red Bloodwood
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Eucalyptus globoidea</i>	White Stringybark
<i>Acacia implexa</i>	Hickory Wattle
<i>Pittosporum undulatum</i>	Sweet Pittosporum
SHRUBS	
Botanical	Common
<i>Banksia spinulosa</i>	Hairpin Banksia
<i>Breynia oblongifolia</i>	Coffee Bush
<i>Acacia longifolia</i>	Sydney Golden wattle
<i>Acacia longissima</i>	Long-leaf wattle
<i>Dodonaea viscosa</i>	Common Hopbush
<i>Pomaderris prunifolia</i>	Plum-leaf Pomaderris
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Adiantum aethiopicum</i>	Maiden Hair Fern
<i>Adiantum aethiopicum</i>	Maiden Hair Fern
<i>Apium prostratum</i> Labill. ex Vent. subsp. <i>prostratum</i>	Sea Celery
<i>Baumea juncea</i>	Bare Twig-rush
<i>Caladenia carnea</i>	Pink Fingers Orchid
<i>Caladenia carnea</i>	Pink Fingers Orchid

<i>Dianella caerulea</i>	Blue Flax-lily
<i>Dichondra repens</i>	Kidney Weed
<i>Gahnia clarkei</i>	Tall Saw-sedge
<i>Isolepis cernua</i> (Vahl) Roem. & Schult.	Nodding Club Rush
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
<i>Pteridium esculentum</i>	Bracken Fern
<i>Pteridium esculentum</i>	Bracken Fern
<i>Pterostylis nutans</i>	Nodding Greenhood
<i>Pterostylis nutans</i>	Nodding Greenhood
<i>Stenotaphrum Secundatum</i>	Buffalo Grass
<i>Viola hederacea</i>	Ivy-leaved Violet
<i>Viola hederacea</i>	Ivy-leaved Violet
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Marsdenia rostrata</i>	Milk Vine
<i>Parsonsia straminea</i>	Common Silkpod
<i>Stephania japonica</i>	Snake Vine



NAME BUSHCARE ACTION PLAN REVIEW

Document Number: D16/404551 • **Adopted:** • **Minute Number:** • **File:** 26280E •
Produced By: Planning & Development Services Group • **Review Date:**

CONTACT INFORMATION

Group Name: Cudmirrah – Berrara Bushcare Group
Contact: Beverly Endicott
Address: 30 Pope Ave, Berrara
Email: bendicott@bigpond.com
Reserve Name: Errol Bond, Third Ave, Kirby's Beach & Berrara Cove
Reserve Number: BCU925
Land Tenure: Crown T/M **Comm. Land Type:** Natural Area

1. BUSHCARE GROUP GOALS

The goals of the Cudmirrah – Berrara Bushcare Group are as follows:

1. Restore, manage and maintain the biodiversity of the natural area public reserve within and surrounding the villages of Cudmirrah – Berrara and Swan Lakewith a focus on the following areas:
 - I. Swan Lake foreshore adjacent to Errol Bond Reserve
 - II. Third Ave Reserve dunes west of Swan Lake entrance and adjacent to Surfside caravan park
 - III. Kirbys Beach dunes
 - IV. Berrara Cove foreshore
2. Develop and undertake environmental education projects/activities aimed at raising awareness amongst residents and visitors of the reserve's environmental values and how they can help protect them.
3. Raise awareness of the volunteer work that the Bushcare Group are doing in the villages and continue to actively communicate with the Cudmirrah – Berrara Progress Association.

2. BUSHCARE GROUP ACHIEVEMENTS TO DATE – (What successes has your Bushcare Group achieved in relation to your achieving the goals and actions in your current Bushcare Group Action Plan and what lessons or new skills/knowledge have you learnt from these achievements?)

Successes/Goals/Actions achieved to date	Lessons learnt
Control of noxious and environmental weeds along the Errol Bond Foreshore Reserve	Bushcare Group volunteers have increased their skills and knowledge in native plant identification and bush regeneration
Regeneration of 1.98 hectares of Bangalay Sand Forest Complex, which is listed as an Endangered Ecological Community under the NSW Threatened Species Conservation Act 1995 at Kirbys Beach dunes	The Bushcare Group have learnt that the key to successfully restoring bushland is consistent follow up weed control on a regular basis
Regeneration of 2.1 hectares of Bangalay Sand Forest Complex which is listed as Endangered Ecological Community Under the NSW Threatened Species Conservation Act 1995 at the Third Ave Reserve dunes	
Revegetation of the Berrara Creek Flats Reserve as per the Plan of Management	The importance of maintaining on-going communication with the local residents and the Cudmirrah – Berrara Progress Association
Village-wide targeted weed control and education program to control Winter Senna (<i>Senna pendula</i>) on private land	
Control of Madiera Vine (<i>Androdera cordifolia</i>) on the small tributary of Berrara Creek adjacent to the corner of Lakeland & Waterhaven Aves	

3. **SHOALHAVEN BUSHCARE GROUP ACTIVITIES TABLE** (to be used in conjunction with attached site map/s)
KEY: Priority = frequency of site visits H = High (every 12 months); M = Medium (1-3 years); L= Low (3+Years)

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
Area A – Errol Bond Foreshore Reserve Current and Existing Actions 1. Continue with follow up manual control of Asparagus Fern (<i>Asparagus aethiopicus</i>) and Winter Senna (<i>Senna pendula</i>) re-growth on the areas that the Bushcare group have already worked	H	Current and Existing Actions 1. Manual control methods and remove reproductive parts of the plants (seeds and rhizomes)	On-going
Area B - Southern side of Swan Lake Entrance Current and Existing Actions 1. Bushcare Group to assist Council, as resources permit, with on-going weed control targeting Bitou Bush (<i>Chrysanthemoides monilifera ssp. rotundata</i>) and Winter Senna (<i>Senna pendula ssp. pendula</i>)	M	Current and Existing Actions 1. Manual and chemical control techniques	On-going
Area C – Third Ave Dunes – Between Surfside Caravan Park and Swan Lake entrance New Actions 1. Council to support the Bushcare Group to continue to undertake secondary restoration, weed control and revegetation works, following the 3 years grant funded project to restore the dunes by providing the following:	H	New Actions 1. Manual and chemical control techniques	1. On-going

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<ul style="list-style-type: none"> a. On-site Bushcare Support Officers for 3 hours per month to provide training in bush regeneration skills and knowledge to volunteers b. Assistance with secondary weed control of dense infestations within budgetary constraints c. Provision of materials/equipment such as plants and tools <p>2. Bushcare Group to continue to undertake supplementary planting in the dunes as required using species from the plans revegetation/planting list</p>		<p>2. Undertake revegetation in Autumn using suggested revegetation/planting species list</p>	<p>2. On going</p>
<p>Area D – Third Ave foreshore reserve south of lookout to small gully</p> <p>Current and Existing Actions</p> <ul style="list-style-type: none"> 1. Bushcare Group to continue with follow up weed control, primarily targeting Asparagus Fern and Winter Senna. 2. Bushcare Group to monitor fore-dune area for Sea Spurge (<i>Euphorbia paralias</i>) and Southern African Gladiolus (<i>Gladiolus carinatus</i>) and remove as required <i>Note: Ensure gloves are worn when handling Sea Spurge as sap is toxic</i> 	M	<p>Current & Existing Actions</p> <ul style="list-style-type: none"> 1. Manual and chemical weed control techniques 2. Manual control, insuring that gloves are worn when pulling the Sea Spurge, 	<ul style="list-style-type: none"> 1. On-going 2. On going

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
New Actions <ol style="list-style-type: none"> 1. Council and Bushcare Group establish a 1 metre wide mulched buffer strip along the boundary of the mown edge and bushland interface to prevent on-going encroachment of exotic grasses. 2. Bushcare Group to maintain mulched buffer strip 		New Actions <ol style="list-style-type: none"> 1. Council to spray edge and provide mulch for Bushcare Group to spread 2. Spray and top up mulch as required 	<ol style="list-style-type: none"> 1. Winter 2. As required
Area E – Kirbys Beach Current and Existing Actions <ol style="list-style-type: none"> 1. Bushcare Group to continue to undertake follow up restoration and weed control works from Fifth Ave (pumping station) south to Kirbys steps 2. Council to undertake secondary weed control on dunes north of Fifth Ave (pumping station) 	H	<ol style="list-style-type: none"> 1. Manual and chemical control techniques as required 	On-going
Area F – Berrara Cove No work is to be undertaken within 1 metre of cliff edges Current and Existing Actions <ol style="list-style-type: none"> 1. Control weeds 2. Spot spray Buffalo Grass in areas where it has actively invaded good quality understory native vegetation 	M	<ol style="list-style-type: none"> 1. Manual and chemical control techniques 	On going

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
3. Notify Council if viewing platform area requires vegetation control to maintain vistas 4. Maintain existing plantings on reserve adjacent to 38 Silver Sands Drive 5. Continue to spray edges of bushland to control Buffalo Grass New Actions 1. Council to engage specialist contractors to undertake woody weed control on cliff face 2. Spot spray Buffalo Grass in areas where it has actively invaded good quality understory native vegetation 3. Understory planting in sprayed areas using ground cover species that have a mature height of 1 metre or less		2. Chemical control using 1:200 ratio of glyphosate: water in cooler season 3. As required 4. As required 5. Chemical control using 1:200 ratio of glyphosate: water in cooler season 1. Council to engage contractors as required 2. Chemical control using 1:200 ratio of glyphosate: water in cooler season 3. See section 12 suggested planting/revegetation species list	1. 2017 2. Winter 3. Autumn
Area G - Berrara Creek Reserve Current and Existing Actions 1. Bushcare Group and Council to undertake follow up weed control of Madeira Vine, Winter Senna and Mile-a Minute	L	1. Manual and chemical weed control techniques	On going
Community Education/Awareness Raising Current and Existing Actions			

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>1. Undertake a "Grow Me Instead" weed replacement project targeting Winter Senna on private properties within the villages and surrounds.</p>		<ul style="list-style-type: none"> • Council and Bushcare Group to prepare information pack on identification, control and replacement of Winter Senna • Bushcare Group note where winter senna is growing on private properties <p>1. Bushcare Group door knock properties and provide residents with information pack and replacement plants Bushcare Group and Council to design and produce fact sheet</p>	1. 2017-18
<p>New Actions</p> <p>2. Develop information/fact sheet on the Bushcare Group and what they are trying to achieve, for distribution to visitors and residents</p> <p>3. Hold a tour of the Bushcare site/s and invite the community.</p>		<p>New Actions</p> <p>2. Bushcare and Council to host tour</p>	2. 2018 3. 2018

4. a) BERRARA – CUDMIRRAH BUSHCARE GROUP ACTION PLAN MAP SITES A, B & C



b) BERARRA – CUDMIRRAH BUSHCARE GROUP ACTION PLAN MAP SITES D, E, F & G



5. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	Safe Work Instruction (SWI)
Chemical control (spraying of herbicides)	√	SWI129

6. COUNCIL SUPPORT Council will provide support in the following areas:

- Provision of a qualified bush regenerator to provide on-site support in Bushcare skills/knowledge and work, health and safety issues for 3 hours per month
- Provision of materials/equipment within budgetary constraints
- Assistance with additional weed control services within budgetary constraints
- Provision of technical advice and support
- Assistance with grant funding application and management
- Provision of PPE

7. HAS A SITE HAZARD AND RISK ASSESSMENT BEEN COMPLETED FOR THE BUSHCARE SITE?

Yes √ No ☐

8. LIST THE PERSONAL PROTECTION EQUIPMENT REQUIRED FOR VOLUNTEERS WHILST WORKING ON THE SITE

PPE Equipment Required	Date issued
First Aid Kit	2016
Gloves	2016
Sunscreen	2016
Insect repellent	2016

9. POSSIBLE FUTURE FUNDING

Project	Funding source
Assistance with weed control on cliff faces and other high risk areas	Various

10. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due:

11. PLEASE LIST OTHER LOCAL OR REGIONAL MANAGEMENT PLANS OR STRATEGIES THAT THIS PLAN RELATES TO

Name of document	Year it was produced	Produced by
Generic Community Land – Natural Areas Plan of Management	2001	Shoalhaven City Council
Foreshore Reserves Policy	2005	Shoalhaven City Council
Swan Lake and Berrara Creek Natural Resources Management Strategy	2002	Shoalhaven City Council

**12. BUSHCARE SITE RECOMMENDED PLANTING/REVEGETATION
SPECIES LIST**

OVERSTOREY TREES (Applies to Areas A,B,C & E)	
Botanical	Common
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Casuarina glauca</i>	Swamp She Oak
<i>Eucalyptus botryoides</i>	Bangalay Gum
SHRUBS (Does not apply to area F)	
Botanical	Common
<i>Acacia longifolia</i> spp <i>sophorae</i>	Coastal Wattle
<i>Acacia longifolia</i> spp. <i>longifolia</i>	Sydney Golden Wattle
<i>Correa alba</i>	White Correa
<i>Correa reflexa</i>	Common Correa
<i>Myoporum insulare</i> spp <i>boniense</i>	Boobialla
<i>Pittosporum revolutum</i>	Rough Pittosporum
<i>Rhagodia candolleana</i>	Seablite
<i>Werstringia fruticosa</i>	Coastal Rosemary
UNDERSTOREY (grasses, herbs, climbers) (All areas)	
Botanical	Common
<i>Dianella caerulea</i>	Native Flax Lilly
<i>Gharnia clarkei</i>	Cutting Grass
<i>Hardenbergia violacea</i>	Happy Wanderer
<i>Hibbertia scandens</i>	Golden Guinea Flower
<i>Kennedia rubicunda</i>	Dusky Coral Pea
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Parsonsia straminea</i>	Monkey Rope Vine
<i>Scaevola albida</i>	Fab Flower
<i>Stephania japonica</i>	Snake Vine

13. BUSHCARE SITE WEED LIST (The following weeds have been recorded on the site)

Noxious	Environmental	Control Method
<i>Chrysanthemoides monilifera</i> spp <i>rotundata</i> (Bitou Bush)		Manual – Hand pull and cut and paint and chemical control of larger infestations
<i>Asparagus aethiopicus</i> (Ground Asparagus Fern)		Manual control crowning out plants rhizomes and chemical control using Metsulfuron methyl
<i>Rubus fruticosus</i> (Blackberry)		Scrape and paint canes with 1:3 Glyphosate:water
<i>Asparagus asparagoides</i> (Bridal Creeper)		Release Bio control rust fungus on larger infestations or spot spray isolated plants or crown out rhizomes
<i>Lantana camara</i> (Lantana)		Manual – Hand pull and cut and paint and chemical control of larger infestations
	<i>Euphorbia paralias</i> (Sea Spurge)	Hand pull smaller infestations Note always wear gloves due to toxic sap
	<i>Coprosma repens</i> (Mirror Bush)	Manual – Hand pull and cut and paint and chemical control of larger infestations
	<i>Lonicera japonica</i> (Japanese Honeysuckle)	Chemical control using glyphosate or hand pull smaller infestations
	<i>Acetosa sagittata</i> (Turkey Rhubarb)	Chemical control using Glyphosate at 1.5% ratio/water insure follow up
	<i>Crocasmia x crocosmiiflora</i> (Montbretia)	Hand dig smaller infestation insure to remove bulbs
	<i>Senna pendula</i> spp. <i>pendula</i> (Winter Senna)	Manual – Hand pull and cut and paint and chemical control of larger infestations
	<i>Senecio angulatus</i> (Climbing Groundsel)	Chemical control of larger infestation using Metsulfuron methyl
	<i>Anredera cordifolia</i> (Madiera Vine)	Scrap and paint vines with Vigilant®

14. AREA C SITE SPECIES LIST - The following native species have been recorded on the site across a randomly selected 50 metre transect (see attached map in appendices for transect location details)

OVERSTOREY TREES	
Botanical	Common
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Cassine australis</i>	Red Fruited Olive Plumb
<i>Casuarina glauca</i>	Swamp She Oak
<i>Eucalyptus botryoides</i>	Bangalay Gum
SHRUBS	
Botanical	Common
<i>Acacia implexa</i>	Hickory Wattle
<i>Acacia longifolia</i> spp <i>sophorae</i>	Coastal Wattle
<i>Acacia longifolia</i> spp. <i>longifolia</i>	Sydney Golden Wattle
<i>Acacia maidenii</i>	Maidens Wattle
<i>Brynia oblongifolia</i>	Native Coffee Bush
<i>Leptospermum laevigatum</i>	Coastal Tea Tree
<i>Leucopogon parviflorus</i>	Coastal Bearded Heath
<i>Myoporum acuminatum</i>	Mangrove Boobialla
<i>Notalea longifolia</i>	Mock Olive
<i>Notalea venosa</i>	Mock Olive
<i>Pittosporum undulatum</i>	Native Daphne
<i>Pittosporum revolutum</i>	Rough Fruited Pittosporum
<i>Rhagodia condolleana</i>	Seablite
<i>Solanum stelligerum</i>	Devils Needles
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Imperata cylindrica</i>	Blady Grass
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Rhagodia condolleana</i>	Sea Berry
<i>Senecio linearifolius</i>	Native Groundsel
<i>Solanum prinophyllum</i>	Forest Nightshade
<i>Spinifex sericeus</i>	Beach Spinifex
<i>Urtica incisa</i>	Native Stinging Nettle
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Stephania japonica</i>	Snake Vine

15. AREA E SPECIES LIST - The following native species have been recorded on the site across a randomly selected 50 metre transect (see attached map in appendices for transect location details)

OVERSTOREY TREES	
Botanical	Common
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Casuarina glauca</i>	Swamp She Oak
<i>Eucalyptus botryoides</i>	Bangalay Gum
<i>Leptospermum levigatum</i>	Coastal Tea Tree
<i>Pittosporum undulatum</i>	Native Daphne
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> spp. <i>sophorae</i>	Coastal Wattle
<i>Acmena smithii</i>	Lilly Pilli
<i>Breynia oblongifolia</i>	Native Coffee Bush
<i>Cassine australis</i>	Red Fruited Olive Plumb
<i>Leucopogon parviflorus</i>	Coastal Bearded-Heath
<i>Monotoca elliptica</i>	Tree Broom-heath
<i>Myoporum acuminatum</i>	Mangrove Boobialla
<i>Notalea longifolia</i>	Mock Olive
<i>Notalea venosa</i>	Mock Olive
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Bolboschoenus caldwellii</i>	
<i>Cakile maritima</i> spp. <i>maritima</i>	New Zealand Spinach
<i>Carpobrotus glaucescens</i>	Pig Face
<i>Centella asiatica</i>	Centella
<i>Commolina cyanea</i>	Scurvy Weed
<i>Correa alba</i>	Coastal Fuchsia
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Dianella revoluta</i>	Blue Flax Lily
<i>Dichondra repens</i>	Kidney Weed
<i>Ficcinia nodosa</i>	Knobbly Club-rush
<i>Imperata cylindrica</i>	Blady Grass
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Oplismenus aemulus</i>	Basket Grass
<i>Oplismenus imbecillis</i>	Basket Grass
<i>Pelargonium australe</i>	Coastal Geranium
<i>Poa labillardierei</i>	Tussock Grass
<i>Scaevolea calendulacea</i>	Purple Fav Flower
<i>Senecio linearifolius</i>	Native Groundsel
<i>Sonchus hydrophilus</i>	Native Sowthistle
UNDERSTOREY (vines & climbers)	
Botanical	Common

<i>Cissus hypoglauca</i>	Slender Grapevine
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Glycine microphylla</i>	Love Creeper
<i>Glycine tabacina</i>	Love Creeper
<i>Hibbertia scandens</i>	Native Guinea Flower

16. AREA F SITE SPECIES LIST - The following native species have been recorded on the site across a randomly selected 50 metre transect (see attached map in appendices for transect location details)

OVERSTOREY TREES	
Botanical	Common
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Casuarina glauca</i>	Swamp She Oak
<i>Myoporum acuminatum</i>	Mangrove Boobialla
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> spp. <i>sophorae</i>	Coastal Wattle
<i>Breynia oblongifolia</i>	Native Coffee Bush
<i>Homalanthus populifolius</i>	Bleeding Heart
<i>Pittosporum undulatum</i>	Native Daphne
<i>Westringia fruticosa</i>	Native Coastal Rosemary
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Centella asiatica</i>	Centella
<i>Dichondra repens</i>	Kidney Weed
<i>Entolasia marginata</i>	Boarded Panic Grass
<i>Entolasia stricta</i>	Wiry Panic Grass
<i>Gahnia clarkei</i>	Sword Sedge
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Oplismenus aemulus</i>	Basket Grass
<i>Pratia purpurascens</i>	White Root
<i>Viola hederacea</i>	Native Violet
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Hibbertia scandens</i>	Native Guinea Flower
<i>Kennedia rubicunda</i>	Dusky Coral Pea
<i>Parsonsia straminea</i>	Silk Pod Vine
<i>Stephania japonica</i>	Snake Vine

Appendix 1 – Map of 50 metre Vegetation Transects Locations Site C ★



Appendix 2 - Map of 50 metre Vegetation Transects Locations Sites E & F

